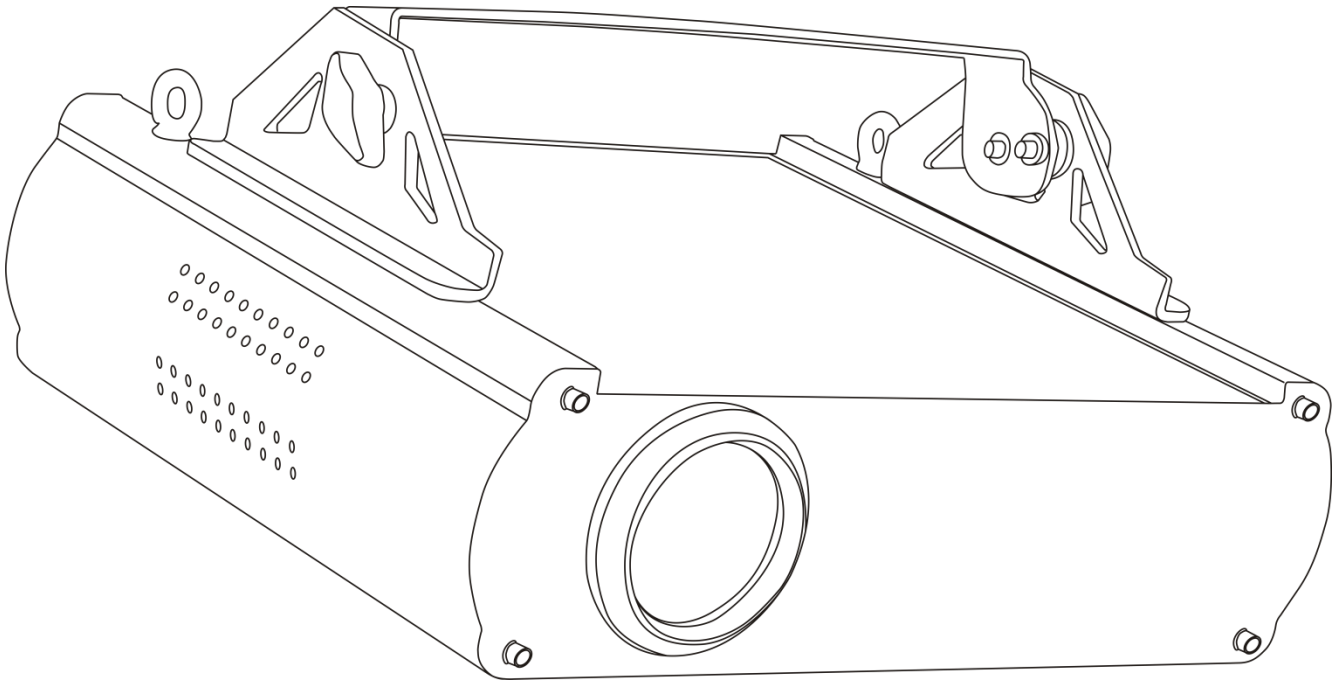
MANUAL



ENGLISH

Galactic RGB 720 V1

Ordercode: 51340

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Warning

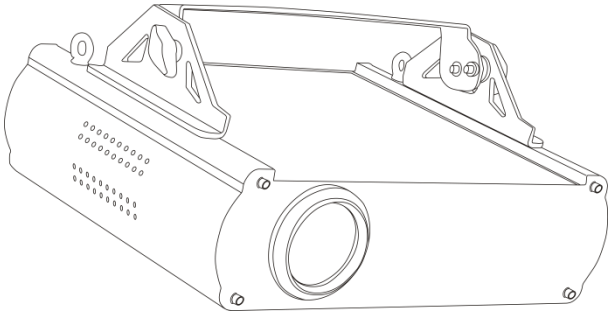
For your own safety, please read this user manual carefully before your initial start-up!

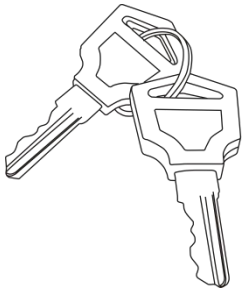
Unpacking Instructions

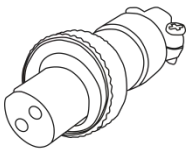
Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- Showtec Galactic RGB 720 with IEC power cable 1,75m
- Remote control plug and 2 keys
- 2GB SD Card with ILD and PRG files
- User manual







CAUTION! Eyedamages!!!
Never look directly into the lightsource!!!
Never project a single laser point!!!

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

**CAUTION! Be careful with your operations.
With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**

Before your initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.
Please consider that damages caused by manual modifications to the device are not subject to warranty.
This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Never aim the laser beam at people or animals!
- Never use the device during thunderstorms, unplug the device immediately.
- Never point a laser at aircraft, this is a federal offense.
- Never point un-terminated laser beams into the sky.
- Never open the laser housing. The high laser power levels inside of the protective housing can start fires, burn skin and will cause instant eye injury.
- Do not insert objects into air vents.
- Do not connect this device to a dimmerpack.
- Do not open the device and do not modify the device.
- Do not point lasers at highly reflective surfaces such as windows, mirrors and shiny metal. Even laser reflections can be hazardous.
- Do not expose the output optic (aperture) to cleaning chemicals
- Do not use laser if the laser appears to be emitting only one or two beams
- Do not use laser if housing is damaged or open, or if optics appear damaged in any way.
- Do not operate laser without first reading and understanding all safety and technical data in this manual. Never look into the laser aperture or laser beams
- Do not switch the device on and off in short intervals, as this would reduce the device's life.
- Do not shake the device. Avoid brute force when installing or operating the device.
- After set up and prior to public use, test laser to ensure proper function. Do not use the laser if any defect is detected. Do not use, if the laser emits only one or two laser beams rather than dozens/hundreds, as this could indicate damage to the diffraction grating optic, and could allow emission of higher laser levels.
- Only use device indoor, avoid contact with water or other liquids.
- Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always check the regulations when using a class IIIB laser product.

- Always check and position the laser before anybody enters the room, when the laser is facing an area with people
- Always keep case closed while operating.
- Always allow free air space of at least 50 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If the lens is obviously damaged, it has to be replaced. So that its functions are not impaired, due to cracks or deep scratches.
- If device is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- If your Showtec device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Showtec dealer for service.
- For adult use only. Device must be installed out of the reach of children. Never leave the unit running unattended.
- Never attempt to bypass the thermostatic switch or fuses.
- For replacement use fuses of same type and rating only.
- The operation of a class 4 laser show laser is only allowed if the show is controlled by a skilled and well-trained operator familiar with the data included in this manual.
- The user is responsible for correct positioning and operating of the Galactic RGB 720. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- The laser will only work between 15-35°C.
- After 3 hours working, you must shut off the laser and let the laser diode cool off for 30 minutes, otherwise the laser could be damaged and the warranty becomes void.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

CAUTION! Eyedamages!!!
Avoid looking directly into the lightsource!!!
(meant especially for epileptics)!!!

Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light-output and the illuminated surface must be more than 1 meter.
- The maximum ambient temperature ta = 35°C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 30° C.
- If this device is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash etc.

You endanger your own safety and the safety of others!

Laser safety for a Class 4 Laser Product

This product is a Class 4 laser with 720 mW visible output.
Class 4 is the highest and most dangerous class of laser, including all lasers that exceed the Class 3B AEL. By definition, a class 4 laser can burn the skin, or cause devastating and permanent eye damage as a result of direct, diffuse, specular reflections or indirect beam viewing..
These lasers may ignite combustible materials, and thus may represent a fire risk.
These hazards may also apply to indirect or non-specular reflections of the beam, even from apparently matte surfaces—meaning that great care must be taken to control the beam path.
Class 4 lasers must be equipped with a key switch and a safety interlock.

CAUTION! Only Laser Safety Officers who are officially certified by a regulatory body or authorized training organization are allowed to use class 4 lasers in public. The Laser Safety Officer is responsible for all aspects when using this laser, including following all locally applicable safety laws and regulations. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this laser.

CAUTION: AVOID EXPOSURE TO BEAM: Avoid direct eye contact with laser light. Never intentionally expose your eyes or others to direct laser radiation.

Compliance Statement
Your Galactic Laser has been designed to comply with FDA and IEC Standards for it classification.
The Galactic is a Class 4 laser product.

Laser Safety and Compliance Information
The Galactic is manufactured to comply with the IEC 60825-1 and in accordance with U.S. Food and Drug Administration (FDA) Standards Listed under FDA Document 21 CFR 1040 and subsequent laser notices.

Product Classification and Manufacturing Label Identification

Laser Classification	Class 4
Cooling	TE Cooling + Cooling fan
Laser medium	wavelength 450 nm / Blue (DPSS), 440mW
	wavelength 532 nm / Green (DPSS), 130mW
	wavelength 638 nm / Red (Laser Diode), 150mW
Output	720 mW
Beam Diameter	<20mm at aperture
Pulse Data All pulses	< 4Hz (>0.25sec)
Divergence (each beam)	<2 mrad
Divergence (total light)	<160 degrees

The legal requirements for using laser entertainment products vary from country to country. The user is responsible for the legal requirements at the location/country of use.

Further guidelines and safety programs for safe use of lasers can be found in the ANSI Z136.1 Standard "For Safe Use of Lasers", available from www.laserinstitute.org. Many local governments, corporations, agencies, military and others, require all lasers to be used under the guidelines of ANSI Z136.1. Laser Display guidance can be obtained via the International Laser Display Association, www.laserist.org.

CAUTION: The use of corrective eye wear or optics for viewing at distances such as telescopes or binoculars within a distance of 100mm may pose an eye hazard.

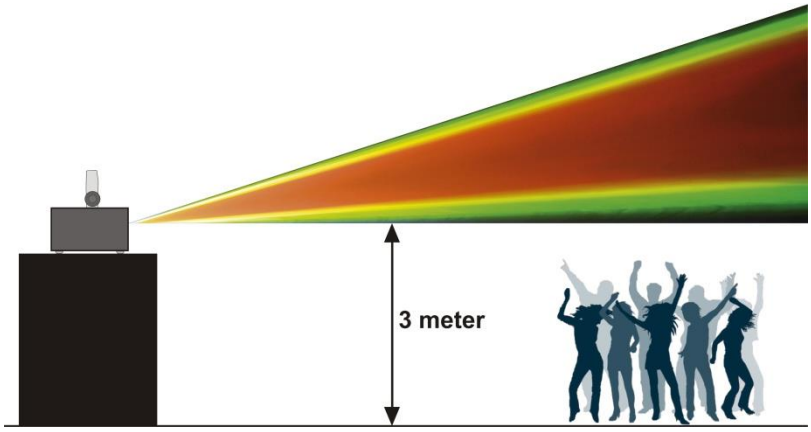
This laser product is a Class 4 laser and has an Interlocked housing.

There are no user serviceable parts inside. Tampering or removing warranty seals will void your products limited warranty.

Manufactured for:
LASER LIGHT
AVOID DIRECT EYE EXPOSURE
CLASS 3B LASER PRODUCT
Maximum Output CW
<500mW LD/DPSS
532/473/671nm
Classified per EN 60825-1:2001
Model
Serial Number
Date of Manufacture
No user serviceable parts inside.
WARRANTY VOID
If seal is broken or has been tampered with
CAUTION – Class 3B LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM
This product conforms with FDA 21 CFR 1000-1040 and subsequent Laser Notices.

Combo label with the Product Model Number, Serial Number, Date of Manufacturing, Laser Light Warning Label, Warranty Void Label and Interlocked Housing Label

Proper Usage Safety and Compliance Information



According to FDA Regulations you should operate this product as stated on the left.

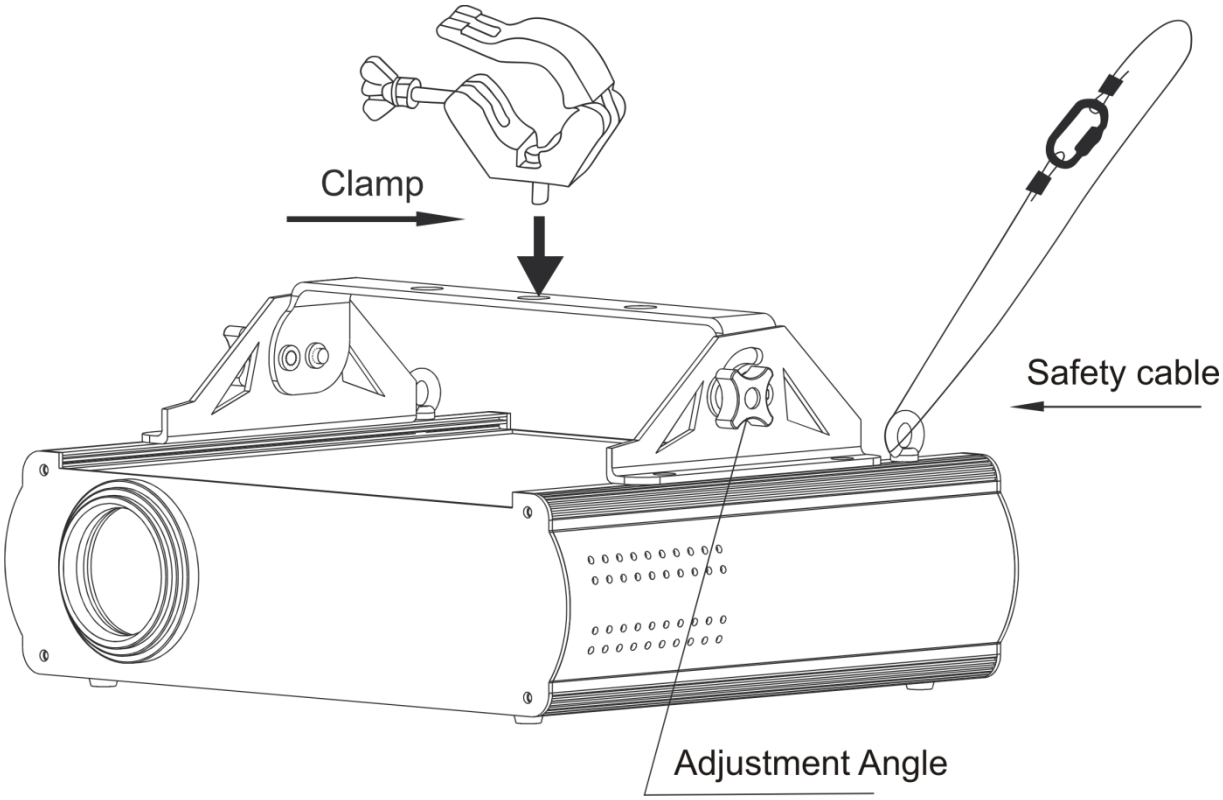
Rigging

Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself !
Always let the installation be carried out by an authorized dealer !

Procedure:

- If the Galactic is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Galactic, with the mounting-bracket, to the trussing system.
- The Galactic must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety-cable.
- When rigging, derigging or servicing the Galactic, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.



The Galactic can be placed on a flat stage floor or mounted to any kind of truss with a clamp.

Improper installation can cause serious damage to people and property !

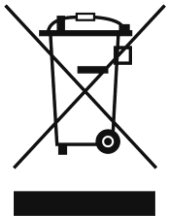
Connection with the mains

Connect the device to the mains with the power-plug.
Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
⏚	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

Make sure that the device is always connected properly to the earth!

Improper installation can cause serious damage to people and property!



Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

01) Your name
02) Your address
03) Your phone number
04) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.
It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.
Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.
Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.
Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The Showtec Galactic RGB 720 is a laser effect with high output and great effects.

- Power Input: AC 100-240V, 60/50Hz
- Power Consumption: 13 Watt
- Beam Diameter <20mm at aperture
- Scan Speed: 20K
- Laser Class: 4
- Laser Modulation: TTL
- Laser Safety: EN/IEC 60825-1 Ed 2, 2007-03
- Laser Color: Red, Green, Yellow, Blue, Purple, Cyan, White
- Laser Power: 720mW (150mW 638nm Red, 130mW 532nm Green, 440mW 450nm Blue)
- Scan Angle: +/-80°
- Control Modes: Auto, Sound, Master/Slave, DMX, ILD
- Divergence (each beam) <2 mrad; Divergence (total light) <160 degrees
- 3-pin DMX In and 3-pin DMX Out, Sub-D 25 Pole
- Clear full color LCD display for all settings
- Compact strong metal housing
- Music-controlled via built-in microphone
- 24 DMX Channels
- Safety Features: Key switch, Interlock
- Fuse 1,6 AL / 250V
- Dimensions: 315 x 282 x 155 mm (LxWxH)
- Weight: 4 kg
- Accessories: 2 Keys, Interlock remote plug, 2GB SD Card

Overview

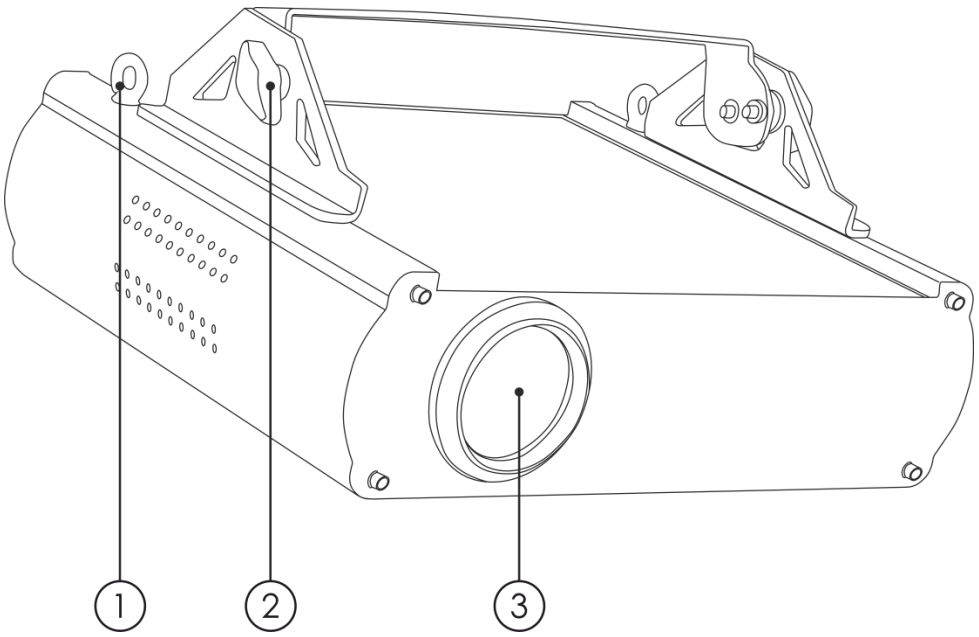


Fig. 01

01) Safety Eye
02) Adjustment Screw
03) Lens

Backside

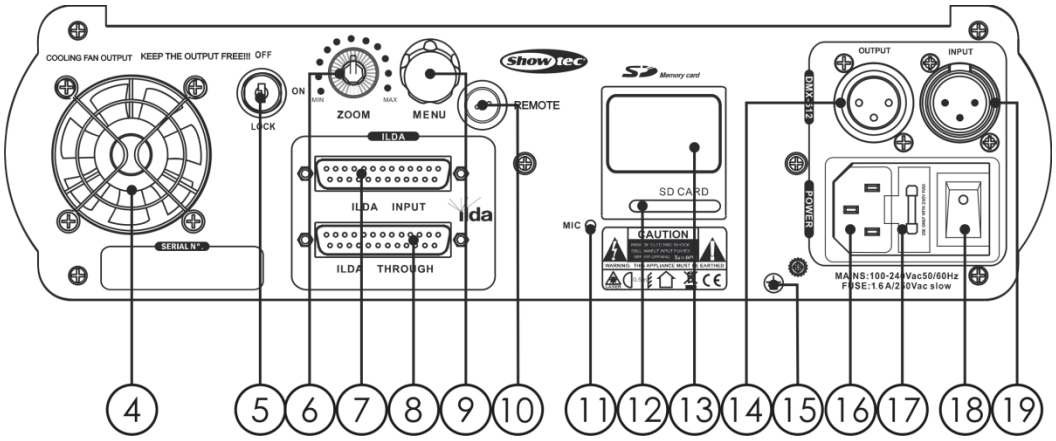


Fig. 02

04) Cooling Fan
05) Lock On/Off
06) Zoom
07) ILDA Input
08) ILDA Through
09) MENU
10) Remote Control
11) Built-in Microphone
12) Slot for SD Card with Lasershows
13) LCD Display
14) 3-pin DMX signal connector (OUT)
15) Ground/Earth connection
16) IEC Power connector 100-240VAC
17) Fuse 1.6AL/250V
18) Power switch ON/OFF
19) 3-pin DMX signal connector (IN)

NOTE: Knowledge of DMX is required to fully utilize this unit.

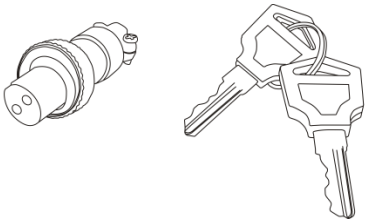
Installation

Remove all packing materials from the Galactic. Check that all foam and plastic padding is removed. Connect all cables.
Do not supply power before the whole system is set up and connected properly.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Set Up and Operation

Follow the directions below, as they pertain to your preferred operation mode.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 230V power, or vice versa.
Connect the device to the main power supply. The device can be music-controlled by its built-in microphone.

The Interlock plug/remote plug and safety keys are included in the box.
The interlock is the "included-in-the-box" successor for the optional remote interlock (51316)

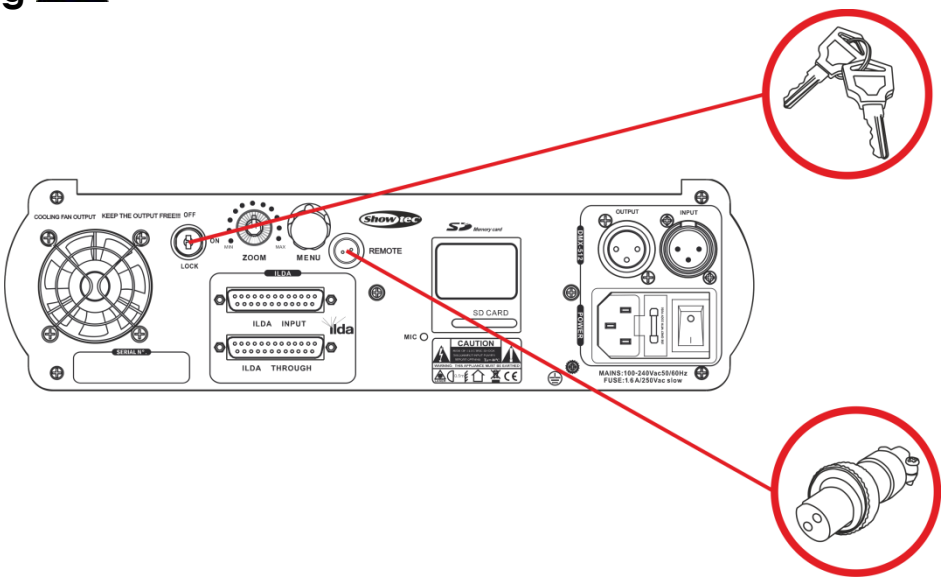


They should be kept with the Galactic laser !!!

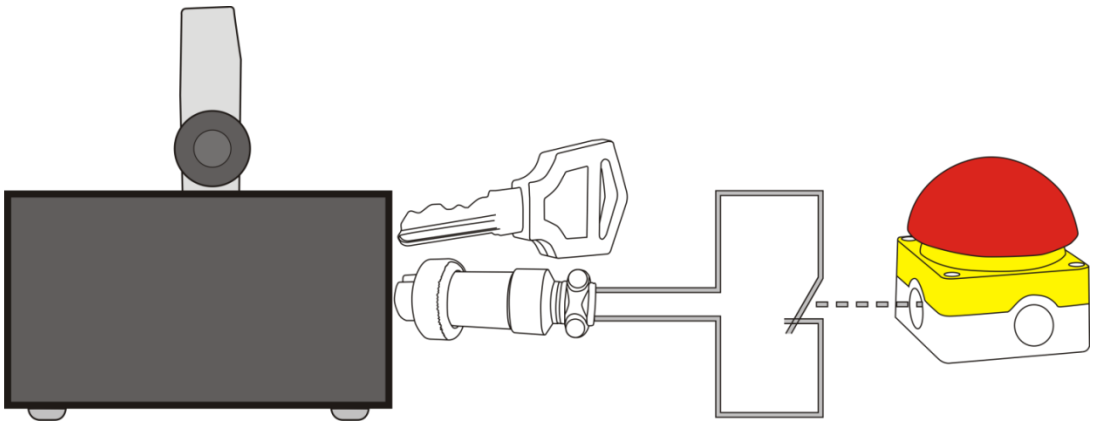
The following safety precautions should be followed:

- The interlock plug should be placed on the backside **(10)** of your Galactic laser.
- The keys should be put into the lock **(05)** of your Galactic laser.

Warning



Exclusion of liability
Be aware that in some countries, there are additional regulations, regarding the use of laser devices. Therefore, we strongly advise you to verify your national laws with your authorities: We don't take any responsibility for eventual discrepancies, changes or adaptions regarding lawful use of laser devices.



Control Modes

There are 5 modes:

ILD SD Card
Built-in visual effects
Sound-controlled
Master/Slave
DMX-512

One Galactic ILD SD Card (visual laser show)

01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
02) Always use a safety cable (ordercode 70140 / 70141).
03) Plug the end of the electric mains power cord into a proper electric power supply socket.
04) Please see pages 19-22 for more information about the ILD Mode.

One Galactic Built-in (visual laser show)

05) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
06) Always use a safety cable (ordercode 70140 / 70141).
07) Plug the end of the electric mains power cord into a proper electric power supply socket.
08) When the Galactic is not connected with a DMX-cable, it functions as a stand-alone device.
09) Please see page 22 for more information about the Built-in visual effects.

One Galactic Sound-controlled

01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
02) Always use a safety cable (ordercode 70140 / 70141).
03) Plug the end of the electric mains power cord into a proper electric power supply socket.
04) When the Galactic is not connected by a DMX-cable, it functions as a stand-alone device.
05) Please see page 23 for more information about the about the Sound-controlled mode.

Multiple Galactics (Master/Slave control)

01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
02) Always use a safety cable (ordercode 70140 / 70141).
03) Plug the end of the electric mains power cord into a proper electric power supply socket.
04) Use a 3-p XLR cable to connect the Galactic.

The pins:

1. Earth
2. Signal (-)
3. Signal (+)

05) Link the units as shown in (Fig. 3), Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units. You can use the same functions on the master device as described on pages 22-23 (Built-in or Sound Active). This means that you can set your desired operation on the master device and all the slave devices will react copy the behaviour of the master.

Multiple Galactics (Master/Slave control)

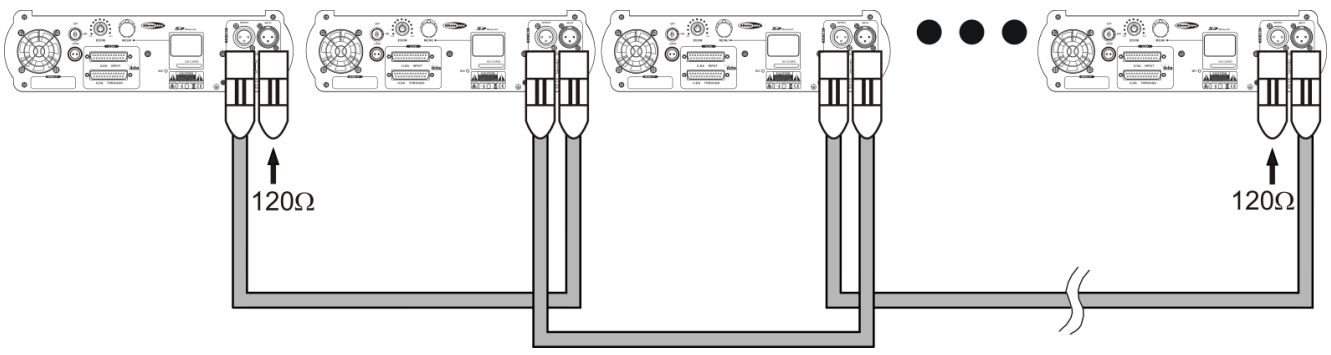
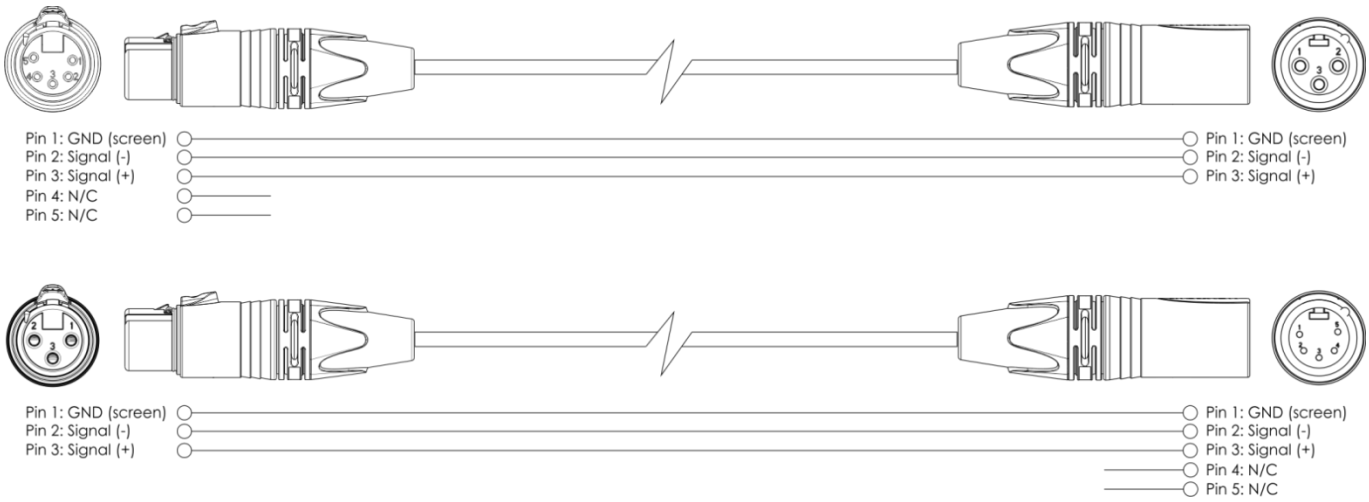


Fig. 03

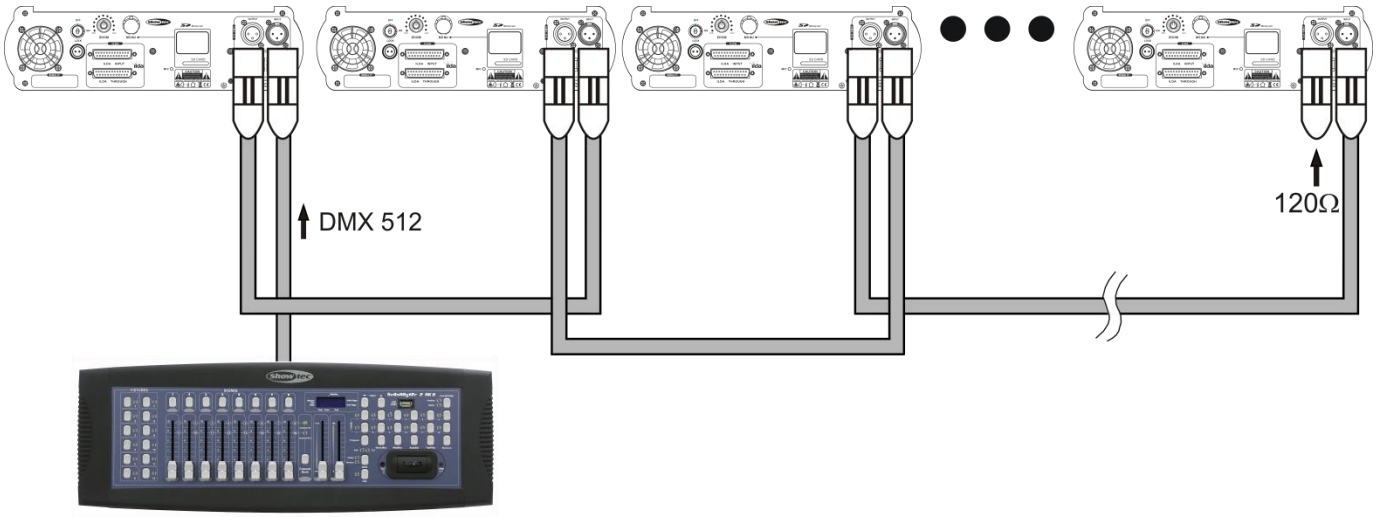
Multiple Galactics (DMX Control)

01) Fasten the effect light onto firm trussing. Leave at least 0,5 meter on all sides for air circulation.
02) Always use a safety cable (ordercode 70140 / 70141).
03) Plug the end of the electric mains power cord into a proper electric power supply socket.
04) Use a 3-p XLR cable to connect the Galactics and other devices.



05) Link the units as shown in (Fig. 4), Connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units.
06) Supply electric power: Plug electric mains power cords into each unit's IEC socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is set up and connected properly. Design your show according to your DMX controller functions.

Multiple Galactics DMX Set Up



Max. 30 Galactics

Fig. 04

Note : Link all cables before connecting electric power

Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows on two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Important: Fixtures on a serial data link must be daisy chained in one single line. To comply with the EIA-485 standard no more than 30 devices should be connected on one data link. Connecting more than 30 fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.

Maximum recommended DMX data link distance: 100 meters
Maximum recommended number of Galactics on a DMX data link: 30 fixtures

Data Cabling

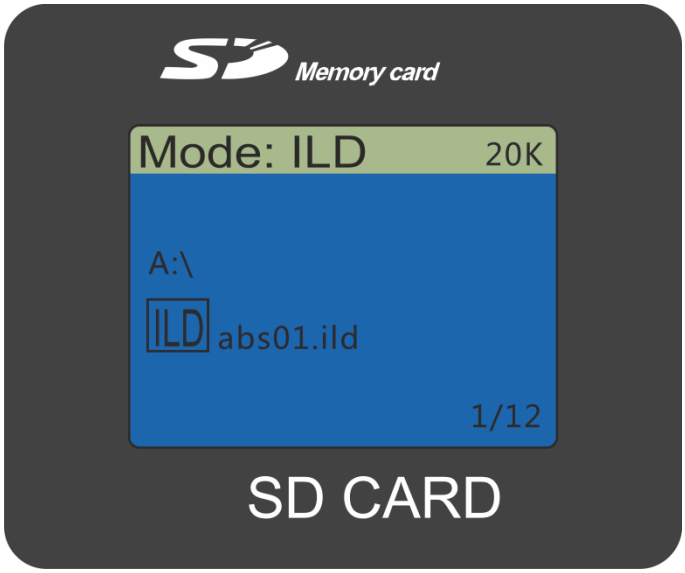
To link fixtures together you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

DAP Audio Certified DMX Data Cables

- DAP Audio cable for allround use. bal. XLR/M 3 p. > XLR/F 3 p.
  Ordercode FL01150 (1,5m.), FL013 (3m.), FL016 (6m.), FL0110 (10m.), FL0115 (15m.), FL0120 (20m.).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. Ordercode FL71150 (1,5m.), FL713 (3m.), FL716 (6m.), FL7110 (10m.).

The Galactic can be operated with a controller in **control mode** or without the controller in **stand-alone mode**.

Control Panel



Press and turn the control to navigate through the menus.

Fig. 05

Control Mode

The fixtures are individually addressed on a data-link and connected to the controller.
The fixtures respond to the DMX signal from the controller. (When you select the DMX address and save it, the controller will display the saved DMX address the next time.)

DMX Addressing

The control panel on the front side of the base allows you to assign the DMX fixture address, which is the first channel from which the Galactic will respond to the controller.
Please note when you use the controller, the unit has **24** channels.
When using multiple Galactics, make sure you set the DMX addresses right.
Therefore, the DMX address of the first Galactics should be **1(001)**; the DMX address of the second Galactic should be **1+24=25 (025)**; the DMX address of the third Galactic should be **25+24=49 (049)**, etc.
Please, be sure that you don't have any overlapping channels in order to control each Galactic correctly.
If two or more Galactics are addressed similarly, they will work similarly.

Controlling:

After having addressed all Galactic fixtures, you may now start operating these via your lighting controller.
Note: After switching on, the Galactic will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the "**LED**" on the control panel will not flash.
The problem may be:

- The XLR cable from the controller is not connected with the input of the Galactic.
- The controller is switched off or defective, the cable or connector is detective, or the signal wires are swapped in the input connector.

Note: It is necessary to insert a XLR termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

System Setup

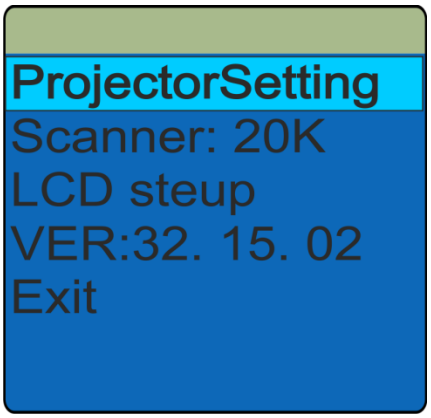
Language Settings

01) At start-up, while the starting screen is still on the display, **press** and hold down the **MENU** control for 2 seconds (do not turn the control).
02) Choose your preferred language by **turning** the **MENU** control to the left or right.
03) The available languages are: English, Simplified Chinese, Traditional Chinese and Japanese.
04) **Press** the **MENU** control to save your language choice.

After a few seconds, the device will automatically enter the currently active mode.

Basic Settings

01) At start-up, while the starting screen is still on the display, **turn** the **MENU** control (do not press the control)
02) In this menu you can adjust:
    - Projector settings (Single color, R/G/Y – Red/Green/Yellow, Multicolor)
    - Scanner settings (10K, 15K or 20K)
    - LCD setup (Adjustment range from 0 to 53%, from dark to bright)



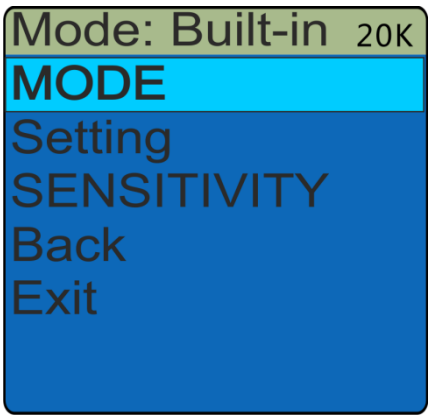
03) **Turn** the **MENU** control until the selection bar moves to the option which you would like to adjust.
04) **Press** the **MENU** control to enter edition mode.
05) **Turn** the **MENU** control to the left or right to, respectively, decrease or increase the adjusted values.
06) Once the option has been adjusted, **press** the **MENU** control again to save changes.
07) To exit the menu, select Exit on the screen and **press MENU** control.
08) The device will automatically enter the currently active mode.

Operations

Main Menu

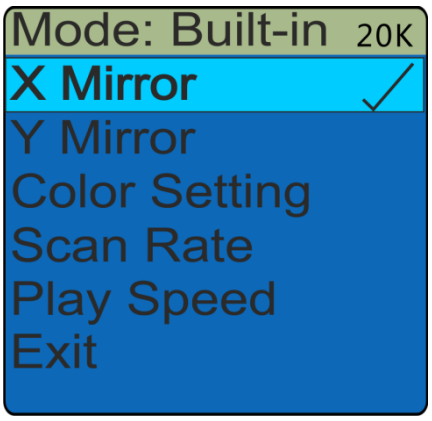
There are 3 available modes: Mode
Setting
Sensitivity

01) At start-up, once the calibration process has been completed and the device entered the currently active mode, **press** the **MENU** control and hold it down for 2 seconds (do not turn the control).
02) You have entered the main menu in which you can choose whether you want to edit the device's settings or to activate one of the built-in laser shows.



1. Mode
For detailed information on the available control modes, see page 19, chapter Control Modes.

2. Setting
01) While in the main menu, choose Setting by **turning** and then **pressing** the **MENU** control.
02) In this menu you are able to adjust the following options:
- X mirror (the show flips horizontally)
- Y mirror (the show flips vertically)
- Color Setting (Single Color, R/G/Y - Red, Green, Yellow and Multicolor)
- Scan Rate (The adjustment range: 0-20K. The higher the value, the more solid the laser beam becomes.
- Play Speed (available only in ILD mode. The adjustment range: 0-30. The lower the value, the faster and smoother the animation)

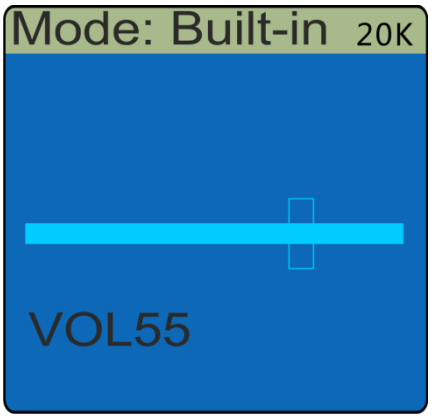


03) To edit any of the forementioned parameters, select one of them by **turning** the **MENU** control to the left or right.
04) **Press** the **MENU** control to enter edition mode.
05) **Turn** the **MENU** control to increase or decrease the value.
06) Once the changes have been made, **press** the **MENU** control to save.

3. Sensitivity

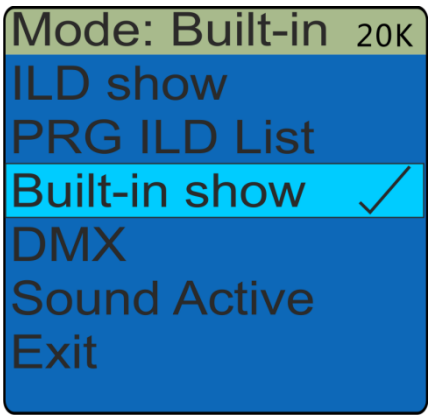
01) While in the main menu, choose Sensitivity by **turning** and then **pressing** the **MENU** control.

02) Now, by **turning** the **MENU** control, you are able to adjust the device's sensitivity to the background music, which has immediate influence upon the behaviour of the device, while in Sound Active mode. The adjustment range is from 0 to 87. The higher the value, the more sensitive the laser becomes.



Control Modes

01) While in the main menu, **turn** the **MENU** control and select MODE.
02) **Press** the **MENU** control to enter the control modes menu. The following screen will pop up:



There are 5 control modes to choose from. Those are:

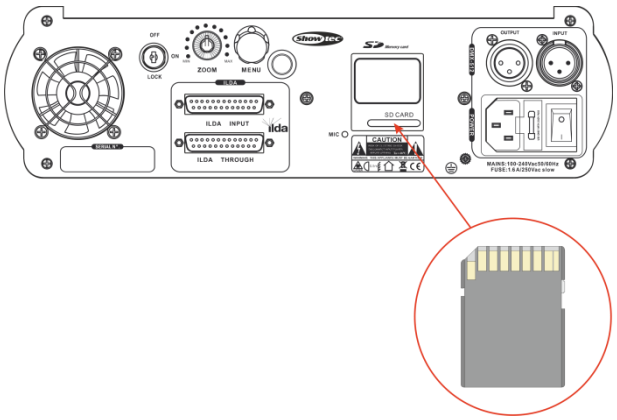
A. ILD show
B. PRG ILD List
C. Built-in show
D. DMX
E. Sound Active

03) **Turn** the **MENU** control to select one of the modes enumerated above and **press** the **MENU** control to activate.
04) Once you have activated the desired mode, you will notice a check mark next to its name (see picture above)
05) Now **turn** the **MENU** control to the right, choose Exit and **press** the **MENU** control.
06) The device operates now in the mode which you have chosen.

Below is a description of all the control modes available on the device.

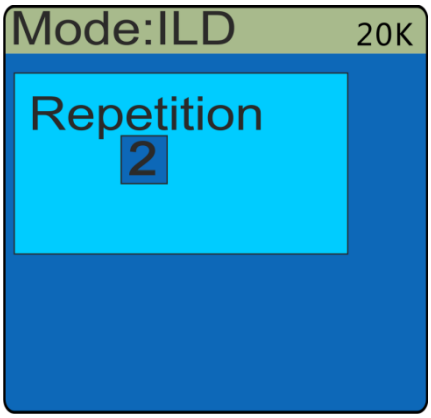
A. ILD show

Note: ILD mode will function **only if** the included SD card has been inserted into the SD slot on the rear panel.

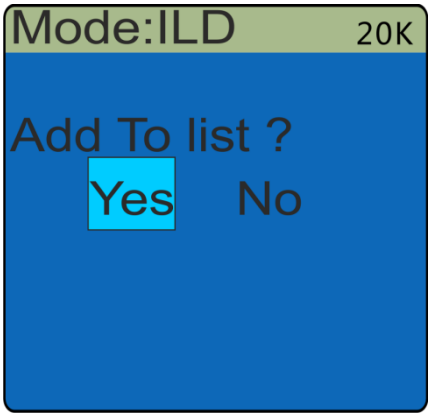


01) **Turn** the MENU control to the left or right to choose the desired .ild file (the full list of .ild folders and files, see page 29).
02) Once you have chosen the desired .ild file, **press** the **MENU** control.

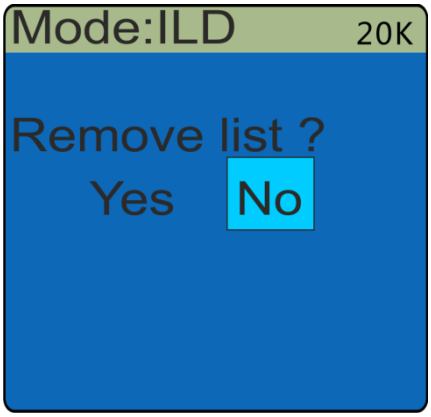
03) The following screen will pop up:



04) **Turn** the **MENU** control to the left or right to, respectively, decrease or increase the number of the display repetitions of your chosen .ild file. A maximum of 15 repetitions is available.
05) **Press** the **MENU** control again, the following screen will pop up:



06) **Turn** the **MENU** control to choose Yes and **press** the **MENU** control to confirm.
07) The following screen will pop up, asking if you want to remove the list:

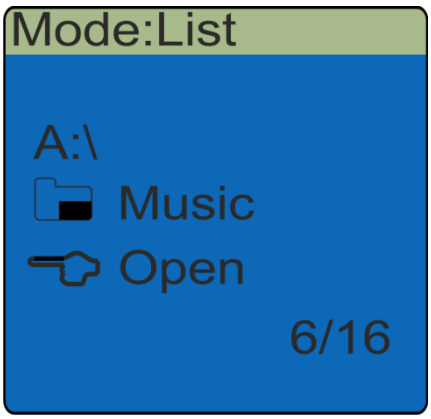


08) **Turn** the **MENU** control, choose No and **press** the **MENU** control to confirm.
09) The .ild file has been added to the list.
10) Repeat the steps 1-9 as many times as you want, depending on the number of .ild files which you would like to add to the list.
11) To exit ILD mode, **press** and hold down the **MENU** control for 2 seconds. The display will show the main menu.

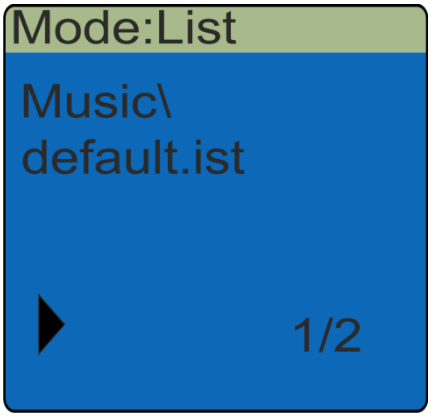
B. PRG ILD List

Note: PRG ILD List mode will function **only if** the included SD card has been inserted into the SD slot on the rear panel.

In PRG ILD List mode you can playback the lists which you saved, while in ILD mode.
This is the PRG ILD List mode main screen:

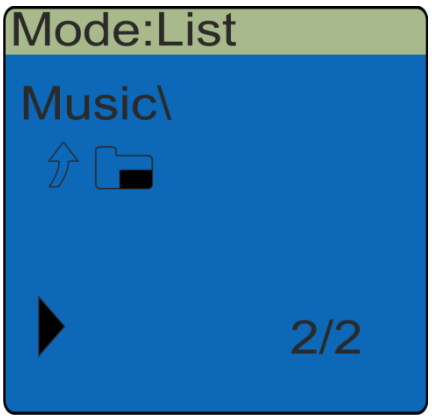


01) **Turn** the **MENU** control to find the folder in which you saved the list.
02) **Press** the **MENU** control to enter the folder, the following screen will pop up:



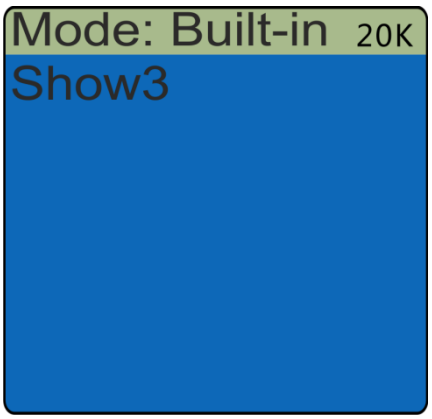
03) The device is now in list playback mode.
04) If you want, you can pause playback by **pressing** the MENU control once. If you want to resume playback, **press** the **MENU** control once more.

05) To toggle between the other available folders on the SD card, **turn** the **MENU** control until the following screen appears on the display:



06) **Press** the **MENU** control once.
07) If you wish, repeat the steps 1-6 as many times as you wish.
08) To exit PRG ILD List mode, **press** and hold down the **MENU** control for 2 seconds, the display will show the main menu.

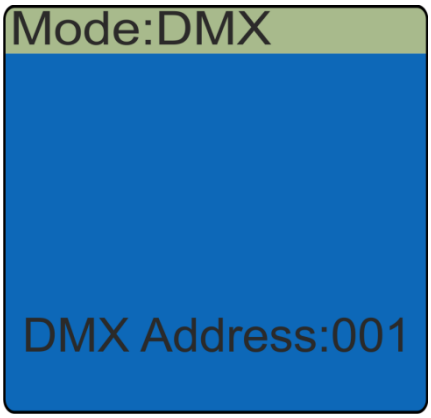
C. Built-in show



01) **Turn** the **MENU** control to the left or right to choose one of the 3 built-in laser shows (Show1 – Show3).

The characteristic features of the built-in programs cannot be adjusted.

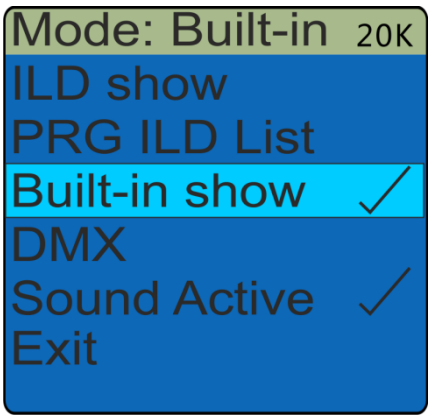
D. DMX mode



01) **Turn** the **MENU** control to the left or right to determine the device's current active DMX address Adjustment range = 001-512.
02) Once the address has been determined, **press** and hold down the **MENU** control for 2 seconds to go back to the main menu.

E. Sound Active

Use Sound Active mode in combination with the other modes. If the mode has been activated, the device will react to the background music.



01) **Turn** the **MENU** control and choose Sound Active and **press** the **MENU** control to activate.
02) **Turn** the **MENU** control and choose between ILD show, PRG ILD List mode or Built-in show. **Press** the **MENU** control to confirm your choice.
03) The device operates now in your preferred mode and it will alter its performance in response to the background music.

DMX Channels

24 Channels

Channel 1 – Control Modes ⚠ **Only when CH1 is set between 201-240, CH2-CH24 will function.** ⚠	
0	Laser OFF
1-40	ILD show on SD Card
41-80	Sound-controlled ILD show on SD Card
81-100	PRG show on SD Card
101-120	Sound-controlled PRG show on SD Card
121-160	Automatic Show with Patterns and Solid Beams
161-200	Sound activated Show with Patterns and Solid Beams
201-240	**DMX** (Solid Beam Mode)
241-255	Sound-controlled **DMX**

Channel 2 – Sound Sensitivity control	
0-255	Sound sensitivity, from very sensitive to OFF

Channel 3 – Shrinking Effect, Primary Pattern	
0	Blackout
1-51	Pattern in original size
52-56	Pattern shrinks
57-101	Pattern in original size
102-106	Pattern shrinks
107-151	Pattern in original size
152-156	Pattern shrinks
157-201	Pattern in original size
202-206	Pattern shrinks
207-251	Pattern in original size
252-255	Pattern shrinks

Channel 4 – Primary patterns	
0-78	68 shape patterns (see page 28, chapter Patterns)
79-82	Rose
83-84	Fish
85-92	Stork
93-98	Elephant
99-104	Pegasus
105-113	Warrior
114-118	Horse
119-124	Penguin
125-255	Dog
Channel 5 – Z-axis Rolling, Primary Pattern	
0-55	Manual Z-axis rolling adjustment
56-63	Blackout
64-159	Pattern rolls back and forth at various speeds
160-191	Pattern rolls from foreground to the background, from slow to fast
192-223	Pattern rolls from the background to the foreground, from slow to fast
224-255	Pattern rolls back and forth at various speeds

Channel 6 – Rotation Effect, Primary Pattern	
0-63	Manual rotation adjustment
64-191	Pattern rotates back and forth at various speeds
192-223	Clockwise rotation, from slow to fast
224-255	Counterclockwise rotation, from slow to fast

Channel 7 – Horizontal Movement, Primary Pattern

0-63	Manual adjustment
64-95	Effect 1
96-127	Effect 2
128-159	Effect 3
160-191	Effect 4
192-223	Effect 5
224-255	Effect 6

Channel 8 – Vertical Movement, Primary Pattern

0-63	Manual adjustment
64-95	Effect 1
96-127	Effect 2
128-159	Effect 3
160-191	Effect 4
192-223	Effect 5
224-255	Effect 6

Channel 9 – Y-axis rotation, Primary Pattern

0-63	Manual adjustment
64-95	Effect 1
96-127	Effect 2
128-159	Effect 3
160-191	Effect 4
192-223	Effect 5
224-255	Effect 6

Channel 10 – X-axis rotation, Primary Pattern

0-63	Manual adjustment
64-95	Effect 1
96-127	Effect 2
128-159	Effect 3
160-191	Effect 4
192-223	Effect 5
224-255	Effect 6

Channel 11 – Gradual Line Drawing, Primary Pattern

0-63	Manual drawing adjustment
64-255	Automatic drawing, from slow to fast

Channel 12 – Pattern Clarity, Primary Pattern

0-255	Pattern clarity adjustment, from high to low clarity

Channel 13 – Color Adjustment, Primary Pattern

0-7	Primary colors
8-15	Red
16-23	Green
24-31	Yellow
32-39	Blue
40-47	Purple
48-55	Cyan
56-63	White
64-127	Progressive color change, from slow to fast
128-191	Color-by-color change, from slow to fast
192-255	Color blending, from slow to fast

Channel 14 – Shrinking Effect, Secondary Pattern

0	Blackout
1-6	Pattern shrinks
7-51	Pattern in original size
52-56	Pattern shrinks
57-101	Pattern in original size
102-106	Pattern shrinks
107-151	Pattern in original size
152-156	Pattern shrinks
157-201	Pattern in original size
202-206	Pattern shrinks
207-251	Pattern in original size
252-255	Pattern shrinks

Channel 15 – Secondary Patterns

0-78	68 shape patterns (see page 28, chapter Patterns)
79-82	Rose
83-84	Fish
85-92	Stork
93-98	Elephant
99-104	Pegasus
105-113	Warrior
114-118	Horse
119-124	Penguin
125-255	Dog

Channel 16 – Z-axis Rolling, Secondary Pattern

0-55	Manual Z-axis rolling adjustment
56-63	Blackout
64-159	Pattern rolls back and forth at various speeds
160-191	Pattern rolls from foreground to the background, from slow to fast
192-223	Pattern rolls from the background to the foreground, from slow to fast
224-255	Pattern rolls back and forth at various speeds

Channel 17 – Rotation Effect, Secondary Pattern

0-63	Manual rotation adjustment
64-191	Pattern rotates back and forth at various speeds
192-223	Clockwise rotation, from slow to fast
224-255	Counterclockwise rotation, from slow to fast

Channel 18 – Horizontal Movement, Secondary Pattern	
0-63	Manual adjustment
64-95	Effect 1
96-127	Effect 2
128-159	Effect 3
160-191	Effect 4
192-223	Effect 5
224-255	Effect 6

Channel 19 – Vertical Movement, Secondary Pattern	
0-63	Manual adjustment
64-95	Effect 1
96-127	Effect 2
128-159	Effect 3
160-191	Effect 4
192-223	Effect 5
224-255	Effect 6

Channel 20 – Y-axis rotation, Primary Pattern	
0-63	Manual adjustment
64-95	Effect 1
96-127	Effect 2
128-159	Effect 3
160-191	Effect 4
192-223	Effect 5
224-255	Effect 6

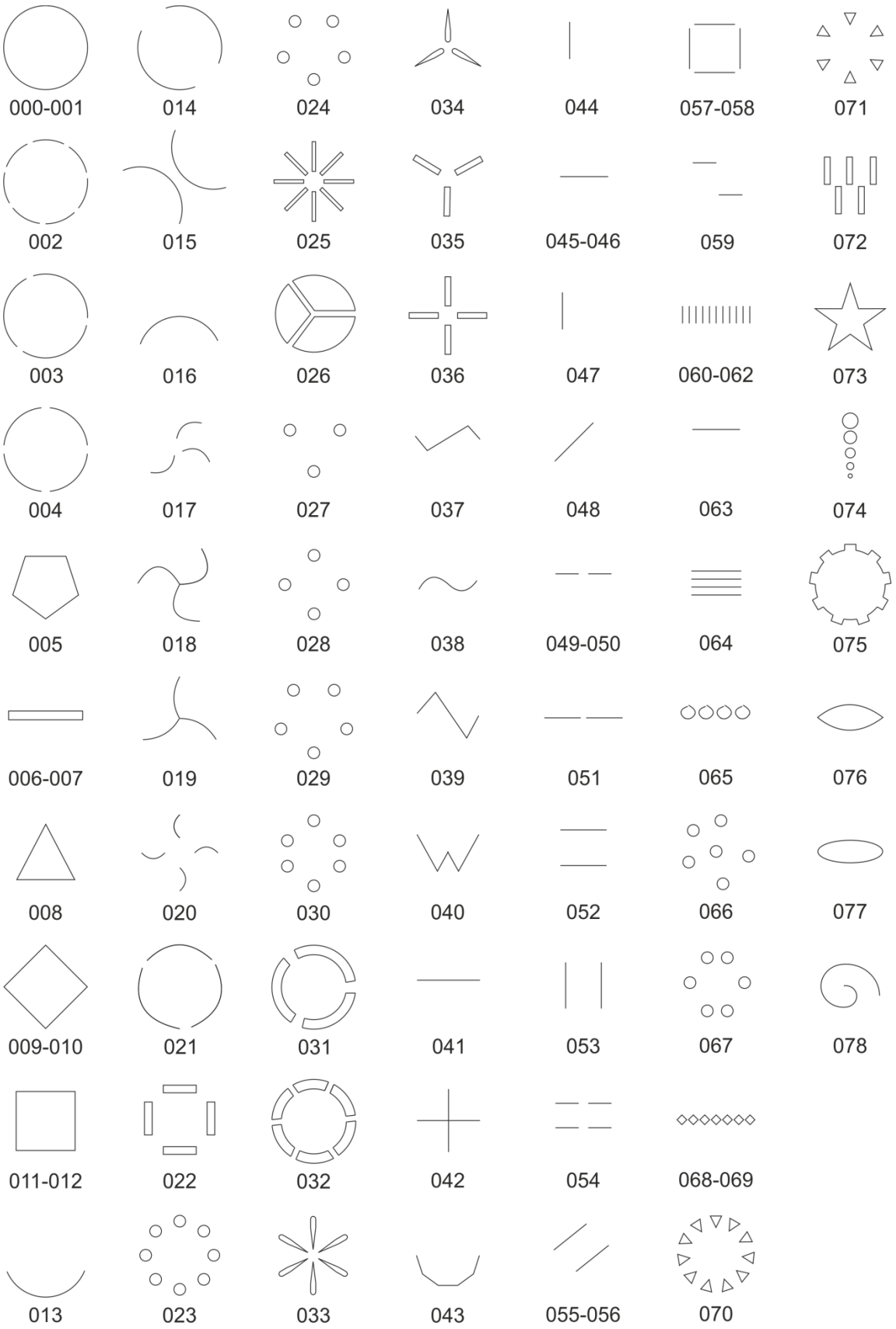
Channel 21 – X-axis rotation, Secondary Pattern	
0-63	Manual adjustment
64-95	Effect 1
96-127	Effect 2
128-159	Effect 3
160-191	Effect 4
192-223	Effect 5
224-255	Effect 6

Channel 22 – Gradual Line Drawing, Secondary Pattern	
0-63	Manual drawing adjustment
64-255	Automatic drawing, from slow to fast

Channel 23 – Pattern Clarity, Secondary Pattern	
0-255	Pattern clarity adjustment, from high to low clarity

Channel 24 – Color Adjustment, Secondary Pattern	
0-7	Primary colors
8-15	Red
16-23	Green
24-31	Yellow
32-39	Blue
40-47	Purple
48-55	Cyan
56-63	White
64-127	Progressive color change, from slow to fast
128-191	Color-by-color change, from slow to fast
192-255	Color blending, from slow to fast

Patterns


000-001
014
024
034
044
057-058
071
002
015
025
035
045-046
059
072
003
016
026
036
047
060-062
073
004
017
027
037
048
063
074
005
018
028
038
049-050
064
075
006-007
019
029
039
051
065
076
008
020
030
040
052
066
077
009-010
021
031
041
053
067
078
011-012
022
032
042
054
068-069
013
023
033
043
055-056
070

ILD and PRG folders and files on the SD Card

3D
3D.PRG
3_cube.ild
maze.ild
molecule.ild
mystify.ild
PLASMA.ild
SPIND.ild
SWIRL.ild
tunnel.ild
wall.ild
WUERFEL.ild
default.ist

Celebrat
baby.ild
bell.ild
bimmel.ild
candles.ild
Celebrat.PRG
Cheers.ild
count.ild
santa.ild
tree.ild
xmas.ild

Character
alice.ild
BELLE.ild
Character.PRG
MAGIC.ild
Naked.ild
neptune.ild
Pamela.ild
Vampress.ild
wife.ild

Dancing
ANI017.ild
ANI066.ild
Dancing.PRG
spin.ild
strip.ild
taenzer.ild

Firework
Firework.PRG
fwbang.ild
SPKG.ild
SWIRL.ild

Music
ANI055.ild
bass.ild
Music.PRG
PIANO.ild
play.ild
default.ist

Nature
earthrot.ild
Nature.PRG
planet.ild
RAIN.ild
seagull.ild
SLSTARS1.ild
Stars.ild

Sports
baseball.ild
BRONCO.ild
bskball.ild
catch.ild
robo.ild
skate.ild
Sports.PRG

Traffic
747.ild
balloon.ild
Camero.ild
DAYBOAT.ild
formula1.ild
Galleon.ild
Jet.ild
plane.ild
Traffic.PRG
TRAIN.ild
WIWil.ild

Wave
2wave.ild
circle_w.ild
dot_wave.ild
d_wave.ild
free.ild
m_wave.ild
swiming.ild
tri_wave.ild
Wave.PRG
wave2.ild
xwave.ild

Wedding
2heart.ild
diamond.ild
flower.ild
rose.ild
Valen.ild
Wedding.PRG
default.ist

Abstract
abs01.ild
abs02.ild
abs03.ild
abs04.ild
abs05.ild
abs06.ild
abs07.ild
Abstract.PRG
Glow.ild
SWIRLY.ild
WAVLG.ild

Animails
3D2DRudy.ild
adler.ild
Animails.PRG
Bat.ild
bear.ild
BELUGAS.ild
bird.ild
BIRDS.ild
dinosaur.ild
fisch.ild
fische.ild
FISHEAT.ild
ilddolf.ild
kangaroo.ild
MINGO.ild
mouse.ild
OSTRIH.ild
PeaceDo.ild
Pelican.ild
RHINO.ild
starabit.ild
ZEBRA.ILD

Beam
2_circle.ild
8_circle.ild
8_flower.ild
Beam.PRG
beat.ild
cir_roat.ild
cir_zoom.ild
c_cirle.ild
c_Line.ild
d_circle.ild
fan.ild
flying.ild
GRIDDOTS.ild
lines.ild
Line_cir.ild
line_x.ild
p_cross.ild
radiance.ild
rect.ild
turbine.ild
x3.ild
XDOTS.ild
x_circle.ild

Cartoon
ATTACK.ild
cart01.ild
cart02.ild
cart03.ild
cart04.ild
cart05.ild
Cartoon.PRG
Cat.ild
duck.ild
monkey.ild
skunk.ild

Maintenance

The Showtec Galactic requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light-output will be significantly reduced. Disconnect the mains power supply and then wipe the cover with a damp cloth. Wipe the front glass panel clean with glass cleaner and a soft cloth. Do not use alcohol or solvents. The front glass panel will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly. Do not immerse in liquid.
Keep connections clean. Disconnect electric power, and then wipe the DMX and audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

The operator has to make sure that safety-relating and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.
The operator has to make sure that safety-relating and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:
01) All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
02) There may not be any deformations on housings, fixations and installation spots.
03) Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
04) The electric power supply cables must not show any damages or material fatigue.

Replacing a Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.
01) Unplug the unit from electric power source.
02) Insert a screwdriver into the slot in the fuse cover. Gently pry up the fuse cover. The fuse will come out.
03) Remove the used fuse. If brown or unclear, it is burned out.
04) Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

No Light

This troubleshooting guide is meant to help solve simple problems.
If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.
If the light effect does not operate properly, refer servicing to a technician.
Response: Suspect three potential problem areas as: the power supply, the laser, the fuse.

01) Power supply. Check that the unit is plugged into an appropriate power supply.
02) The laser. Return the Galactic to your Showtec dealer.
03) The fuse. Replace the fuse. See page 30 for replacing the fuse.
04) If all of the above appears to be O.K., plug the unit in again.
05) If you are unable to determine the cause of the problem, do not open the Galactic, as this may damage the unit and the warranty will become void.
06) Return the device to your Showtec dealer.

No Response to DMX

Response: Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

01) Check the DMX setting. Make sure that DMX addresses are correct.
02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
03) Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products ? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

See next page for more problem solving.

Problem	Probable cause(s)	Remedy
One or more fixtures do not function at all	No power to the fixture.	• Check that power is switched on and cables are plugged in.
	Primary fuse blown..	• Replace fuse.
Fixtures reset correctly, but all respond erratically or not at all to the controller.	The controller is not connected.	• Connect controller.
	3-pin XLR Out of the controller does not match XLR Out of the first fixture on the link (i.e. signal is reversed).	• Install a phase reversing cable between the controller and the first fixture on the link.
Fixtures reset correctly, but some respond erratically or not at all to the controller.	Poor data quality	• Check data quality. If much lower than 100 percent, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug, or a defective fixture disturbing the link.
	Bad data link connection	• Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.
	Data link not terminated with 120 Ohm termination plug.	• Insert termination plug in output jack of the last fixture on the link.
	Incorrect addressing of the fixtures.	• Check address setting.
	One of the fixtures is defective and disturbs data transmission on the link.	• Bypass one fixture at a time until normal operation is regained: unplug both connectors and connect them directly together. • Have the defective fixture serviced by a qualified technician.
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed).	• Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture, that behaves erratically.
Shutter closes suddenly	The laser diode has lost its index position and the fixture is resetting the effect.	• Contact a technician for servicing, if the problem persists.
No light or laser cuts out intermittently	Fixture is too hot.	• Allow fixture to cool. • Make sure air vents at control panel and front lens are not blocked. • Turn up the air conditioning .
	Laser damaged	• Disconnect fixture and return to your dealer.
	The power supply settings do not match local AC voltage and frequency.	• Disconnect fixture. Check settings and correct if necessary.

Product Specification

Model:	Showtec Galactic RGB 720
Input Voltage:	AC 100-240V, 60/50Hz
Continuous Power:	13W
Fuse	1.6AL/250V
Dimensions:	315 x 282 x 155 mm (LxWxH)
Weight:	4 kg
Operation and Programming	
Signal pin OUT:	pin 1 earth, pin 2 (-), pin 3 (+)
Set Up and Addressing:	Clear LCD display for all settings
DMX Channels:	24
Signal input:	3-pin XLR male
Signal output:	3-pin XLR female

Electro-mechanical effects

- DMX-control via standard DMX-controller
- RGBW Color mixing
- When using multiple units together, you can make a dazzling and cost effective beam-show
- Beam Diameter <20mm at aperture
- Laser Class: 4
- Laser Modulation: TTL
- Laser Safety: EN/IEC 60825-1 Ed 2, 2007-03
- Laser Color: Red, Green, Yellow, Blue, Purple, Cyan, White
- Laser Power: 720mW (150mW 638nm Red, 130mW 532nm Green, 440mW 450nm Blue)
- Scan Angle: +/-80°
- Control Modes: Auto, Sound, Master/Slave, DMX, ILD
- Divergence (each beam) <2 mrad; Divergence (total light) <160 degrees
- Compact strong metal housing
- Music-controlled via built-in microphone
- Safety Features: Key switch, Interlock, Safety Eye
- Accessories: 2 Keys, Interlock test connector

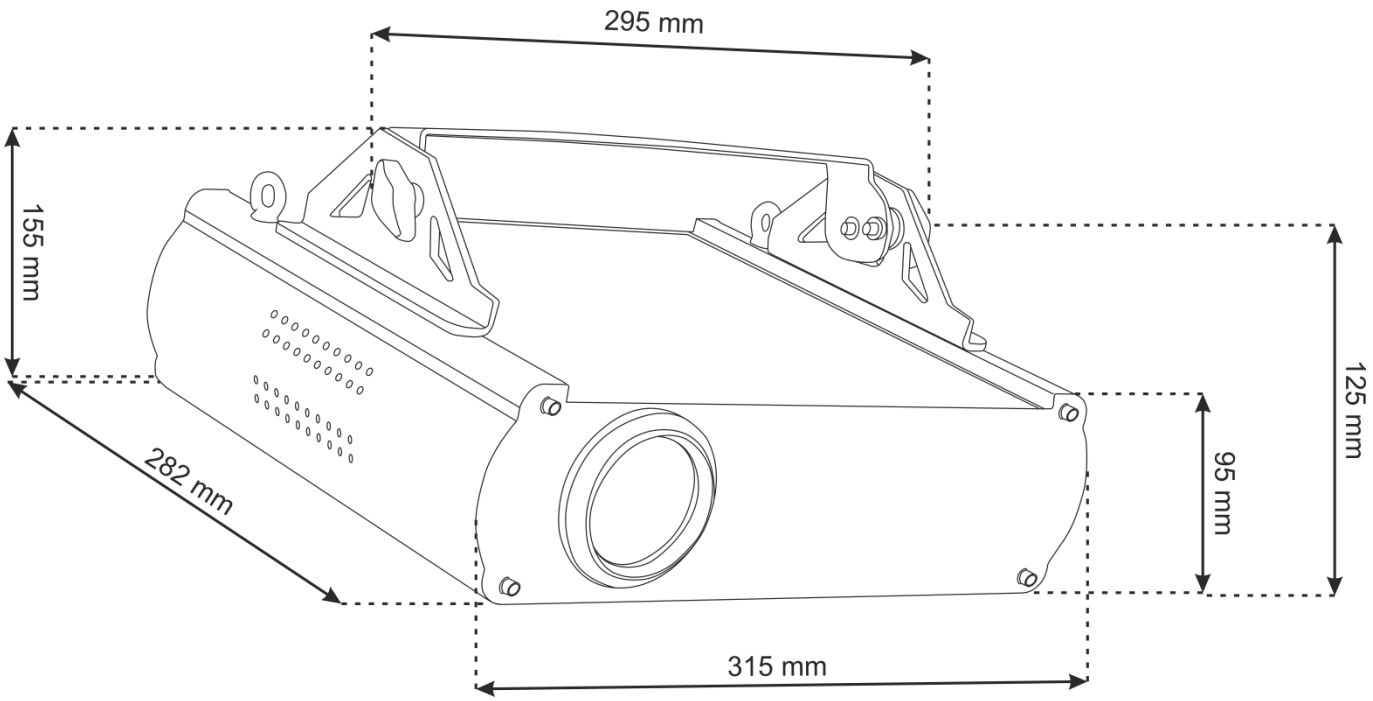
Max. ambient temperature t_a:	35°C
Max. housing temperature t_B:	80°C
Minimum distance:	
Minimum distance from flammable surfaces:	0.5m
Minimum distance to lighted object:	1m

Design and product specifications are subject to change without prior notice.

CE

Website: www.Showtec.info
Email: service@highlite.nl

Dimensions



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